UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,048	02/25/2004	Akira Date	ASAM.0114	8575

7590 05/29/2008

Stanley P. Fisher
Reed Smith LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, VA 22042-4503

EXAMINER	
NGUYEN, DUSTIN	
ART UNIT	PAPER NUMBER
2154	

MAIL DATE	DELIVERY MODE
05/29/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/785,048	DATE ET AL.	
	Examiner	Art Unit	
	DUSTIN NGUYEN	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5 and 7-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5 and 7-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 3-5, 7-15 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3, 5, 7, 8, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. [US Patent Application No 2004/0008664], in view of Firestone [US Patent No 6,965,646].

4. As per claim 1, Takahashi disclose the invention as claimed including a data delivery server connected to a terminal by way of a network for delivering an IP packet having data packets recorded internally of payload, comprising:

a search module for determining a maximum value of size of one IP packet capable of passing through a channel on said network extending from said data delivery server to said mobile terminal [i.e. path MTU discover execution determining function for determining whether a discovery of a Path MTU of the path from corresponding node to destination node

should be executed] [3f, Figure 3; 53g, Figure 12; Abstract; and paragraphs 0116, 0117, 0172 and 0173],

a move detecting module designed to accepting a move message of said mobile terminal [i.e. using the content registered in a binding cache that is stored in the storage to manage the movement of mobile node] [paragraphs 0025, 0098, 0140 and 0141],

wherein said search module determines said maximum value of a size of one IP packet depending upon a current channel on a current network connecting between said data delivery server and said mobile terminal after a move of said mobile terminal by sending out one or more search packets each of which excludes data to be included in the payload of said IP packet, when the move of said mobile terminal is detected by said move detecting module [i.e. the mobile node issues the binding update (BU) message to the MAPs, whereby the mobile node can collect the information about link MTUs of the MAPs] [Figure 13; paragraphs 0048, 0170, 0174, and 0182].

Takahashi does not specifically disclose

a packet generating module for determining a number of said data packets to be stored in the payload of the IP packet on the basis of said maximum value of a size of one IP packet and for storing the determined number of said data packets into the payload of said IP packet thereby generating said IP packet without fragmenting said IP packet,

an input/output unit for delivering said IP packet generated by said packet generating module.

Firestone discloses

a packet generating module for determining a number of said data packets to be stored in the payload of the IP packet on the basis of said maximum value of a size of one IP packet and for storing the determined number of said data packets into the payload of said IP packet thereby generating said IP packet without fragmenting said IP packet [i.e. the segmentor will create network packets that have as many bytes as possible without going over the MTU size] [Figure 3B; col 8, lines 42-55; and col 10, lines 63-col 11, lines 8],

an input/output unit for delivering said IP packet generated by said packet generating module [i.e. streamer for transmitting series of network packets] [col 1, lines 59-63; and col 15, lines 27-36].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Takahashi and Firestone because the teaching of Firestone would enable to determine the proper size for information to be transmitted without reducing or lowering the transmission efficiency.

5. As per claim 3, Takahashi discloses wherein mobile terminal corresponding to MobileIP [paragraphs 0174 and 0179], and wherein said move detecting module is so designed as to accept a message of the move of said mobile terminal sent from a home agent of said mobile terminal defined by said MobileIP [4, Figures 1 and 7; Figure 10; and paragraphs 0153-0162].

6. As per claim 5, it is rejected for similar reasons as stated above in claim 1.

7. As per claim 7, it is rejected for similar reasons as stated above in claim 3.

8. As per claim 8, it is rejected for similar reasons as stated above in claim 1. Furthermore, Firestone discloses a packet generating module for structuralizing said determined number of data packets internally of the payload of said IP packet [Figure 4; and col 13, lines 55-67].

9. As per claim 10, it is rejected for similar reasons as stated above in claims 1 and 8. Furthermore, Takahashi discloses wherein said server includes a terminal cooperation module in place of said search module [i.e. the CN receives the announcement from MN and updates the value of Path MTU preserved in itself] [paragraphs 0014 and 0036], mobile terminal further comprises a search module for determining a maximum value of data quantity capable of being transferred by one IP packet by way of a path on said network extending from said terminal to said server [i.e. Path MTU discovery] [S11, S12, Figure 6; Abstract; and paragraphs 0126 and 0127], said mobile terminal cooperation module of said server is so arranged as to acquire from said mobile terminal information concerning said maximum value of data quantity determined by said search module of said mobile terminal [i.e. generate BU message with ICMPPTB message and send it to CN] [S13, Figure 6; and paragraph 0128].

10. As per claim 15, it is rejected for similar reasons as stated above in claim 3.

11. Claims 4, 9, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. [US Patent Application No 2004/0008664], in view of Firestone [US Patent

No 6,965,646], and further in view of Applicant's Admitted Prior art [hereinafter as APA] [US Patent Application No 2005/0111437].

12. As per claim 4, Takahashi and Firestone do not specifically disclose wherein said search module determines said maximum value of a size of one IP packet by transmitting a plurality of search packets of different data quantities toward said mobile terminal. APA discloses wherein said search module determines said maximum value of a size of one IP packet by transmitting a plurality of search packets of different data quantities toward said mobile terminal [i.e. repeat ping process for searching MTU] [page 2, lines 11-27]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Takahashi, Firestone and APA because the teaching of APA on ping message would enable to determine the proper size for information to be transmitted without reducing or lowering the transmission efficiency.

13. As per claim 9, it is rejected for similar reasons as stated above in claim 4.

14. As per claim 11, APA discloses wherein said search module determines said maximum value of a size of one IP packet by transmitting a ping packet as a search packet toward said mobile terminal [page 2, lines 11-27].

15. As per claim 12, APA discloses wherein said search module determines said maximum value of data quantity by transmitting a ping packet as a search packet [page 2, lines 11-27].

16. As per claim 13, APA discloses wherein said module for determining said maximum value of data quantity determines by transmitting a plurality of search packets of different data quantities [page 2, lines 11-27].

17. As per claim 14, it is rejected for similar reasons as stated above in claim 12.

18. Applicant's arguments with respect to claims 1, 3-5, and 7-15 have been considered but are moot in view of the new ground(s) of rejection.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Dustin Nguyen/
Primary Examiner, Art Unit 2154